

REMARKS

The Office Action dated April 8, 2005, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 4, 7, 10 and 14 are canceled and claims 1 and 2 are amended. No new matter has been added. Claims 1-3, 5, 6, 8, 9, 11-13 and 15-19 are pending and respectfully submitted for consideration.

Claim 2 was objected to for a minor informality. The Applicants have amended claim 2 responsive to the objection.

Claim 4 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Applicants have combined the subject matter of claim 4 with the subject matter of claim 1. Claim 1 recites the aspect ratio of tensile strength of the base paper measured by Japanese Industrial Standard P 8113 is in the range from 5 to 15. The Office Action took the position that without further explanation of the testing standard it may not be included as the basis [of] any limitation in the instant application. However, under U.S. patent practice, foreign industrial standards are considered definite. See Rhodia Chimie v. PPG Industries Inc., 402 F.3d 1371, 74 USPQ 2d 1321 (Fed. Cir. 2005) (The court was concerned, however, that Rhodia's proposed definition of the term to mean "very low dust" was a relative phrase which would not meet the statutory requirement that the claims "particularly point out and distinctly claim the subject matter which the applicant claims as his invention." Id. (citing 35 U.S.C. § 112 ¶ 2). In order to resolve the perceived ambiguity of the claim term in a manner that preserved the term's validity, the court adopted "a construction based upon the only meaningful guidance

provided in the patent," namely the DIN test). (Emphasis Added. The DIN test is the German standard, Deutsches Institut für Normung).

In this case, the Applicants respectfully submit that recitation of the Japanese Industrial Standards provides "meaningful guidance" to one of ordinary skill in the art regarding the claim limitation. . See also Ex Parte Suzuki, 2002 WL 99653 (Bd. Pat. App. & Interf.) (From our perspective, the details provided in the appellant's specification appear to be sufficient to have adequately informed one of ordinary skill in the art at the time the application was filed of the process for carrying out the required measurements of the recited properties or, if necessary, to have directed such a person to the proper Japanese Industrial Standard for additional details and the examiner has not advanced any explanation as to why this would not have been the case.) (Emphasis Added).

In this case, one of ordinary skill in the art can readily ascertain the standard by which the aspect ratio of tensile strength of base paper based on the Japanese Industrial Standard P 8113. Thus, further explanation of the testing standard is not required. Therefore, the Applicants submit that the recitation of the aspect ratio of tensile strength of the base paper in a range of 5 to 15 is definite.

Claims 1, 2, 5, and 16-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ayers (U.S. Patent No. 3,905,863). The Applicants traverse the rejection and respectfully submit that claims 1, 2, 5 and 16-19 recite subject matter that is neither disclosed nor suggested by Ayers.

Claim 1 recites a paper string reticulated structure comprising a paper string made from a base paper containing soft wood kraft pulp as a main raw material, wherein the aspect ratio of tensile strength of the base paper is in a range from 5 to 15.

As a result of the claimed invention, a required high strength can be ensured when the paper string is applied in uses, such as a vegetation net. For example, since the paper string reticulated structure can be used under a severe condition as a reticulated object used for a vegetation net, an agricultural net, an article container such as a shopping bag, and a construction net, the aspect ratio of tensile strength, measured according to Japanese Industrial Standard P 8113, is in a range from 5 to 15.

When the aspect ratio of tensile strength is less than 5, the paper may be broken when the paper is slit from a paper roll into a tape-shape during paper string producing processing. On the other hand, when the aspect ratio of tensile strength is more than 15, the paper may be torn along the longitudinal direction when the paper is slit into a tape-shape. See page 10, lines 9 to 17 of in the specification. The aspect ratio of tensile strength means a ratio of tensile strength of a longitudinal direction to tensile strength of a cross direction. See examples in at least paragraphs [0075] and [0082].

Furthermore, when the aspect ratio of tensile strength is less than 5, not only when the paper is slit into a tape-shape but also when the paper is twisted to a string-shape, the paper may be broken. Moreover, the strength of the paper string naturally decreases and the paper string is easily broken during paper net producing processing. Therefore, the tension cannot be applied thereon during paper net producing processing. In addition, when the paper net is applied to the above uses, it is easily broken. On the other hand, when the aspect ratio of tensile strength is more than 15,

not only when the paper is slit into a tape-shape, but also when the paper is twisted to a string-shape, the paper may be torn along the longitudinal direction, and the paper is difficult to twist since the rigidity thereof in the longitudinal direction is excessively increased, or the paper string is difficult to rewind or reticulate as a net since the rigidity of the paper string is excessively increased also. In addition, when the paper string reticulated structure is applied to the above uses, it is difficult to handle.

In contrast, Ayers discloses a soft, bulky and absorbent paper sheet in which the aspect ratio of tensile strength thereof, that is, the ratio of MD to CD is 1.0 to 2.5. See the tables in columns 21-26 of Ayers. As such, Ayers does not disclose or suggest at least the aspect ration of tensile strength of the base paper is in a range from 5 to 15, as recited in claim 1.

In addition, the Office Action took the position that Ayers discloses, in Figure 1, a knotless, reticulated structure having to furnish (raw material) comprising 50% softwood kraft pulp. See column 3, lines 3-5. The Applicants submit, however, that Ayers discloses in Figure 1 a semi-twill monofilament, polymeric fabric. "The semi-twill monofilament polymeric fiber fabric is shown prior to any abrasion treatment and prior to use as an endless or continuous fabric belt in papermaking or non-woven web manufacturing operations." See column 6, lines 54-62 of Ayers. The polymeric fabric of Figure 1 is used as a tool to imprint on the "furnish", but is not a part thereof. As such, Figure 1 of Ayers does not disclose the paper string made from a base paper containing softwood kraft pulp as a main raw material, as recited in claim 1.

Claims 3, 4, 6 and 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Ayers. As noted

above, claims 4 and 7 have been canceled. Claims 3 and 6 depend from claim 1. The Applicants submit that as Ayers fails to disclose or suggest each and every feature of the invention as recited in claim 1, the reference also fails to disclose or suggest the features of the invention as recited in claims 3 and 6.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “Every element of the claimed invention must be arranged as in the claim [t]he identical invention must be shown in as complete detail as is contained in the patent claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). The Applicants respectfully submit that Ayers does not disclose or suggest a paper string reticulated structure comprising a paper string made from a base paper containing softwood kraft pulp as a main raw material as arranged in claim 1. Accordingly, Ayers does not anticipate claim 1, nor is claim 1 obvious in view of Ayers. As such, the Applicants submit that claims 1, 2, 5, and 16-19 are allowable over the cited art.

Claims 8-15 were rejected under 35 U.S.C. § 103(a) as being obvious over Ayers in view of Phan et al. (U.S. Patent No. 6,136,146, “Phan”). As noted above, claims 10 and 14 have been canceled. Claims 8, 9, 11-13 and 15 depend from claim 1. The Office Action took the position that Ayers discloses many of the claimed elements of the

invention with the exception of a wet paper strength-enhancing agent. Phan was cited for curing this deficiency.

With respect to claims 8, 9, 11-13 and 15, the Applicants submit that the combination of Ayers and Phan fail to disclose or suggest the claimed features of the invention. As discussed above with respect to claim 1, Ayers fails to disclose or suggest at least the combination of a paper string reticulated structure comprising a paper string made from a base paper containing softwood kraft pulp as a main raw material. Phan fails to cure the deficiencies in Ayers, as Phan also does not disclose or suggest at least a paper string reticulated structure comprising a paper string made from a base paper containing softwood kraft pulp as a main raw material.

Further, Phan does not cure the deficiencies in Ayers with respect to claim 1 as Phan does not disclose or suggest at least the aspect of ratio of tensile strength of the base paper, specifically, an aspect of ratio of tensile strength of the base paper in a range from 5 to 15. As such, the combination of Ayers and Phan fails to teach or suggest all of the features of the invention as recited in claims 8, 9, 11-13 and 15.

Claims 8-15 were rejected under 35 U.S.C. § 103(a) as being obvious over Ayers in view of Kearney et al. (U.S. Patent No. 4,225,382, "Kearney"). As noted above, claims 10 and 14 have been canceled. Claims 8, 9, 11-13 and 15 depend from claim 1. The Applicants traverse the rejection and respectfully submit that claims 8, 9, 11-13 and 15 recite subject matter that is neither disclosed nor suggested by the combination of Ayers and Kearney.

As discussed above with respect to claim 1, Ayers fails to disclose or suggest a paper string made from a base paper containing softwood kraft pulp as a main raw

material. Ayers, in Figure 1, merely discloses a polymeric fiber fabric. As such, it would not have been obvious to one of ordinary skill in the art to combine the polymeric fabric disclosed in Ayers with the wet string resins disclosed in Kearney.

Further, as discussed above, Ayers fails to disclose or suggest the aspect of ratio of tensile strength of the base paper is in a range from 5 to 15. Kearney fails to cure the deficiencies in Ayers, as Kearney also does not disclose or suggest the claimed aspect of ratio of tensile strength of the base paper. Therefore, Ayers and Kearney are not properly combinable in order to render claims 8, 9, 11-13 and 15 obvious.

Claims 1-7 and 16-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Masanori (Japanese Patent Publication No. 10001166, Abstract). As noted above, claims 4 and 7 have been canceled. Claims 2, 3, 5, 6 and 16-19 depend from claim 1. The Applicants traverse the rejection and respectfully submit that Masanori fails to disclose or suggest the claimed features of the invention.

As discussed above, claim 1 recites a paper string reticulated structure comprising a paper string made from a base paper containing softwood kraft pulp as the main raw material. In contrast, there is no disclosure or suggestion in the Masanori Abstract of a base paper containing softwood kraft pulp. In addition, Masanori does not disclose or suggest at least the aspect of ratio of tensile strength of the base paper, specifically, an aspect of ratio of tensile strength of the base paper in a range from 5 to 15. As such, Masanori fails to disclose or suggest at least the combination of a base paper containing softwood kraft pulp as the main raw material and an aspect of ratio of tensile strength of the base paper in a range from 5 to 15, as recited in claim 1.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure.

In view of the above, the Applicants submit that Ayers, Phan, Kearney and Masanori, either singly or in combination, fail to disclose or suggest the combination of features recited in the claims. Therefore, Ayers, Phan, Kearney and Masanori do not support a *prima facie* case of obviousness for purposes or a rejection of claims 1-3, 5, 6, 8, 9, 11-13 and 15-19 under 35 U.S.C. § 103.

Claims 2, 3, 5, 6, 8, 9, 11-13 and 15-19 depend from claim 1. The Applicants respectfully submit that these dependent claims are allowable at least because of their dependency from allowable base claim 1. Accordingly, the Applicants respectfully request withdrawal of the objections and rejections, allowance of claims 1-3, 5, 6, 8, 9, 11-13 and 15-19, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 108421-00080.**

Respectfully submitted,


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